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(71) Applicant (for all designated States except US): **SEOUL NATIONAL UNIVERSITY INDUSTRY FOUNDATION** [KR/KR]; San 4-2, Bongcheon-dong, Gwanak-gu, Seoul 151-742 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KWAK, Seung-Yeop** [KR/KR]; Rm. 708, Diovil Yeoksam, 720-25, Yeoksam2-dong, Gangnam-gu, Seoul 135-082 (KR). **JEON, Jae-Deok** [KR/KR]; 402, 103-23 Sinrim-dong, Gwanak-gu, Seoul 151-010 (KR).

(74) Agents: **LEE, Kwang-Bok** et al.; 4F., Byuckcheon Bldg., 1597-5, Seocho-dong, Seocho-gu., Seoul 137-876 (KR).

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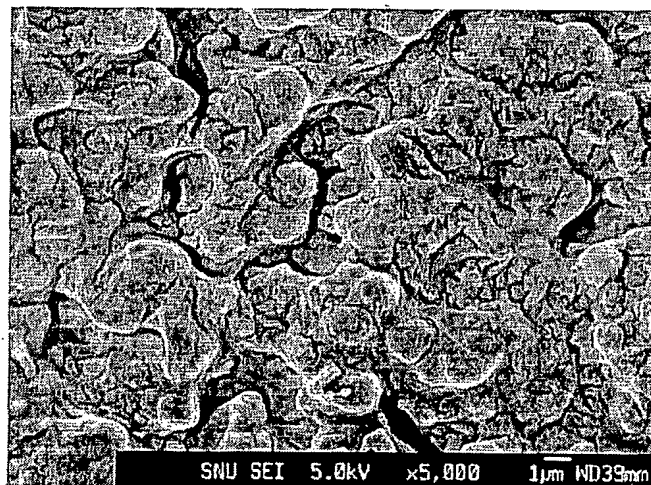
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(54) Title: POROUS FILM TYPE SOLVENT-FREE POLYMER ELECTROLYTE FILLED WITH OLIGOMER/PREPOLYMER ELECTROLYTE AND SECONDARY BATTERY EMPLOYING THE SAME



(57) Abstract: Provided are a solvent-free polymer electrolyte and a secondary battery employing the same. The solvent-free polymer electrolyte includes: a porous film including a first polymer and a second oligomer, the first polymer being at least one selected from the group consisting of poly(vinylidene fluoride-co-hexafluoropropylene) copolymers, polyvinylidene fluorides, polymethylmethacrylates, polyacrylonitriles, polyethyleneoxides, and celluloses having a polyether chain and the second oligomer being at least one selected from the group consisting of poly(ethylene oxide-co-ethylene carbonate) copolymers with at least one terminal groups substituted by a halogen atom and polyethyleneglycols with at least one terminal groups substituted by a halogen atom; and an electrolyte present in the pores of the porous film and including the second oligomer and a

lithium salt. Since the solvent-free polymer electrolyte contains no liquid organic electrolyte, it is not accompanied by problems caused by leakage or evaporation of an organic solvent, unlike a gel-type polymer electrolyte. Furthermore, the solvent-free polymer electrolyte has enhanced ionic conductivity as compared to a conventional solvent-free polymer electrolyte.



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